

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

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February 23, 1995
File No. 1114.17(SIM)

Ms Belinda Wei, Project Officer
U.S. Environmental Protection Agency, Region IX
Hazardous Waste Division (H-6-4)
75 Hawthorne Street
San Francisco, CA 94105

Dear Ms. Wei:

**Subject: Quarterly Progress Report for the South Bay MSCA
Fiscal Year 94 for the Quarter 1 October - 31 December 1994**

? just one
Attached are four copies of the quarterly report. As explained last week, our apologies as other duties prevented me from submitting this by February 15. As before, we are open to any constructive critique of this report to assist you in its review.

Please call me (510/286-0304) if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Steve Morse".
Steve Morse
MSCA Program Manager

cc: SRR, LPK, SAH, AGL
SWRCB/DAS(Budgets/April Ohara)

QUARTERLY STATUS REPORT

October - December 1994

SOUTH BAY MULTI-SITE COOPERATIVE AGREEMENT (MSCA)

EPA GRANT NUMBER V-009403-02-C
(as of September 29, 1994)

State Water Resources Control Board

California Regional Water Quality Control Board
San Francisco Bay Region
South Bay Toxics Cleanup Division

February 15, 1995

QUARTERLY PROGRESS REPORT
SOUTH BAY MULTI-SITE COOPERATIVE AGREEMENT
October - December 1994

The goals of the MSCA for this phase are:

- *To accelerate cleanup at Superfund sites in the South Bay.*
- *To augment the RWQCB's existing programs to ensure that the EPA's requirements, as defined in the National Contingency Plan (NCP), are met for those NPL sites assigned to the RWQCB as lead agency.*

* * *

The South Bay Multi-Site Cooperative Agreement (MSCA), Phase II, was awarded and accepted by the State Water Resources Control Board effective April 13, 1988. This progress report for this phase is submitted to satisfy the Special Conditions. This report covers the October - December 1994 quarter as amended in subsequent grant offers, the latest being awarded September 29, 1994, to extend the agreement to June 30, 1995. An additional time extension to at least December 31, 1995 and possibly June 30, 1996, is under consideration.

The MSCA Grant provides funding for activities of the state (i.e. State Board and Regional Board) responsible for coordinating and enforcing groundwater cleanup programs at Federal Superfund sites in the South Bay. The estimated expenditures, staff years, and accomplishments are compared to the work plans of January 28, 1988, March 9, 1989, February 13, 1990, January 1991, January 22, 1992 (w/ Regional Board workplan amendments of May 3, 1993), and December 1993 as further modified.

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QUARTERLY PROGRESS REPORT
SOUTH BAY MULTI-SITE COOPERATIVE AGREEMENT
October - December 1994

II - SPECIAL CONDITIONS

Besides the tasks in the MSCA's Workplan, some of the grant's Special Conditions require the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) to perform certain activities. The Revised Special Conditions responded to here are part of the grant offer of September 29, 1994.

An amended Workplan for 1994-1995 for \$723k was submitted to and approved by the EPA with an award September 29, 1994.

Under the terms of the Special Conditions, the Board requested that EPA redirect funds between several of the sites to cover unanticipated costs not budgeted. EPA has agreed to the redirection and included the redirection in the September 1994 grant award. Because the award was later than anticipated, and additional agreed upon work was also needed (and not needed) at some sites, redirection will probably be needed again. Additionally, under negotiations with US EPA it is intended to terminate the grant by utilizing state cost recovery vs. EPA grant funds. This process has yet to be worked out and still need additional state work to assure constant funding for final oversight of the remaining work leading to a final RODs as well as adequate funding when in a post ROD (i.e. RD/RA, O&M) mode. Because of this the State will be asking for a no-cost time extension to at least the end of the year, possibly to June 30, 1996, to bring the State programs into line to accommodate the reduced EPA funding.

Due to a change in State accounting to allocate all non-site specific charges monthly (to the appropriate NPL sites in proportion to staff activity), the grant workplan non-site specific tasks (A, and B) and their accounting records can be misinterpreted. The budget and expenditures shown for this quarterly review are the *total for all sites*. EPA continues to finalize the few remaining MSCA sites for initial demands for cost-recovery started in early March 1992. EPA has to date received significant and substantial payments. It is expected that requests for additional annual cost-recovery payments will be made next year. The State will be working next calendar year to move all (or almost all) of the cost-recovery programs from the Superfund sites within the State system. Details are yet to be worked out; additional coordination with EPA will be necessary to finalize the change-over.

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III - SUMMARY AND STATUS OF MSCA TASKS AND BUDGETS

This Section provides a summary as well as details where necessary on the quarterly progress and status of the MSCA tasks in the Workplan approved in the September 1994 award.

To accelerate the cleanup at the South Bay Federal Superfund sites the EPA assigned the responsibility along with the necessary augmented funding to the State and Regional Boards to accomplish oversight and regulation of the South Bay Superfund sites under Federal and State law and regulations as well as EPA Guidelines.

In all instances the acute toxics threat and risk at the MSCA sites is now either under interim control (awaiting long-term solutions) due to aggressive earlier Board regulation and requirements for initial and interim investigations, removals, and remediation or the Board and EPA have adopted and the Responsible Parties are (or have) constructed and/or implemented the long-term remediation project to control chronic threats. The Regional Board's efforts are now focused primarily on the remaining sites requiring completion of any necessary investigations and development of cleanup alternatives (i.e. the RI/FS process) and a proposed cleanup plan (the RAP) for public review and comment (See Table, page III-5). After public review and comment, the Board will adopt the RAP in a Site Cleanup Order (i.e. CAO) as modified by public comment, staff recommendations and Board guidance. If EPA approves of the Board's actions and selects the same remedy (RAP), they will administratively adopt a Record of Decision (ROD). Close coordination with EPA is maintained during the process; there is no reason to believe that EPA would not choose the same remedy as the Board.

Significant Events and Activities **During the Grant Quarter:**

South Bay MSCA Superfund Site Cleanup Decisions (RI/FS/RAP): All the South Bay Superfund sites have accomplished significant amounts of work to meet Superfund final cleanup decision requirements. The tasks remaining are necessary to meet Federal Superfund (all of which the State requires as well) requirements to determine the best alternative considering protection of public health and the environment as well as the maintenance (i.e. high quality groundwater) and protection of the resource (i.e. water conservation and reclamation).

Official Board Actions during Quarter:

October: IBM NPDES Reissuance

November: Philips NPDES Reissuance

December: Teledyne & Spectra-Physics NBAR

Other MSCA Events/Activities during the Quarter:

Quarterly Enforcement Meeting: EPA and the Board project staff meet and/or discuss the more active site cleanup progress frequently during the quarter, especially on the few remaining sites awaiting adoption of final cleanup plans and EPA RODs. Several informal meetings and phone conferences were held between EPA and RWQCB management/staff to update EPA and RWQCB staff and determine program and site actions. No joint quarterly meeting was held between Cal/EPA DTSC, EPA, and the Board covering the enforcement status of the South Bay toxics cleanup sites -- either Superfund or non-Superfund. This joint meeting was previously formalized in the updated South Bay Enforcement Agreement. At this time the primary area where the three agencies interface is the Stanford Industrial Park area in Palo Alto, Rhône-Poulenc in East Palo Alto where the DTSC was previously the lead agency, and at United Heckathorn and Liquid Gold sites in Richmond where the Board is a support agency to EPA and DTSC respectively.

South Bay Groundwater Task Force: Due to low past public attendance and interest, future meetings have been canceled unless a specific topic or site arises that warrants reconstitution of the task force. Contact with the usual participants of the Task Force is maintained through individual site-specific contacts.

Board staffing: During the quarter, the Board's staffing in support of the MSCA was satisfactory. Support of an Information System Technician (IST) is provided on an "as needed" basis. The Site Management System (SMS) was finally updated in May 1994 for the first time in two years and an annual update is expected by mid-1995. In concert with an effort to reduce the amount of resources necessary to produce the Site Management System, the report will be updated through the use of the annual update (first is May 1994) and followups via the

MSCA Tasks Status (cont.)

RWQCB's computer Bulletin Board System (now on-line since March 1993).

1994-1996 MSCA Workplan: Regional Board staff forwarded the 1994-1996 Workplan to the State Water Board for submittal to EPA on December 21, 1993. The State Water Board made an official application for the 1994-1996 in Spring 1994 and an amended application to better reflect actual funding needed Summer 1994.

The amended application comes as a result of a meeting with EPA program management in late January 1994, subsequent staff meetings during Spring 1994, and further clarifications and/or modifications of the workplan made in an attempt to match resources needed to EPA obligations. Additionally, EPA and RWQCB staff jointly wish to reduce the transaction costs by making the MSCA a state program with reimbursement directly to the state. These changes have yet to be fully implemented by both the State and EPA and a further time extension under the agreement is needed to complete the transition.

EPA Cost-Recovery: In early March 1992, EPA began the process of cost-recovery for the MSCA sites. The demands are for combined costs of the Board (through June 30, 1991) and EPA (through July 31, 1991). By the end of March 1992, several RPs had already paid, and most of the remaining billed sites have paid either in full or partially. A cost-recovery suit has been filed by EPA against Intel, Kim Camp III, CTS Printex, and ADN. With the completion of the initial cost-recovery cycle, the beginning of a new annual cycle is expected to resume this year although EPA has made no commitments. SWRCB continued to prepare site accounting records as necessary.

Status and Funding of MSCA Tasks:

The overall total obligated funding status of the Grant tasks is satisfactory, especially with the new grant supplemental award received September 1994. However, even after the 1994 award, some redirection of grant funds will still be needed between sites due to work necessary (and not necessary) that was not anticipated in the workplan. The overall expenditures do not exceed the total MSCA obligations. The status of the individual tasks (and site budgets) varies (see

the individual tasks following for detailed descriptions):

A. Program Management: Normal activities continue with an emphasis on assuring the final adoption of RAPs at several sites -- Rhône-Poulenc (wetlands) and National Semi's OU#2 -- and to assure that time schedules would be met. RD/RA and O&M continues at other sites. Further budget refinements may be necessary to match the grant application to actual award since there has been such a time lag.

B. Site Management System: The SMS was officially updated for distribution in late May 1994 with an "as of" date of early 1994. It now appears that paper copies may still be necessary, at least of a limited nature, on an annual basis at least. After a limited initial distribution, copies are made available for viewing at the RWQCB office, at a local print shop at their cost, and as well as by BBS. Interim updates will be maintained on the BBS awaiting the annual update.

D. Community Involvement: Up-to-date and continuing; see specific item. Community Involvement tasks are now accomplished by the respective project manager with some tasks being performed by a designated staff person to coordinate overall activities where necessary. Prior training, extensive planning, and use of PRP staff and resources have made this practical. The impact of this change affects primarily those sites awaiting final RAP/RODs (e.g. National OU#2 and Rhône-Poulenc Wetlands) and will be monitored closely by the Program Manager. Because of the staffing change, the Community Involvement task work is being incorporated into the other tasks, primarily Task A. Program Management and E.2, NPL Oversight, and will not be reported separately in this or future quarterly reports unless a significant task or activity is being reported. Overall activities on the sites are reported in Task E.2. and will include Community Involvement activities.

We continue to provide copies to the public of the RWQCB/EPA brochure on "Status of Superfund Groundwater Cleanup in the South Bay" that was published and distributed in November 1993.

E2. NPL Site Oversight: Currently, we are able to keep up with the staff work load although some schedules have slipped and are still slipping

MSCA Tasks Status (cont.)

[e.g. Rhône-Poulenc/Sandoz (Wetlands OU), National Semiconductor OU#2] due to the complexity of the sites (wetlands and multiple parties respectively). The typical scenario finds that as the cleanup tasks in the RI/FS workplan become solidified and finalized that details formerly unknown or unresolved take on an importance not previously appreciated (e.g. HP sites). Some unforeseen slippages in the current MSCA schedules have occurred and probably will occur again (e.g. agency agreement and oversight for the wetlands cleanup and remediation at Rhône-Poulenc, etc.). State staff will do everything in their power to minimize slippage. Additionally, the utilization of Operable Units is being used where a firm decision can be made on a given unit *and* a final decision on the remainder of the site can not be made for a considerably longer time (e.g. one year or longer). A review of the site schedule (page III-5) indicates actual and probable slippage from the schedules updated for this quarter and as changed since the last quarter's report.

An additional factor that may delay RODs, but probably not the state RAPs is activity by the State Department of Health Services in the preparation of Health Assessments (HA) under contract for the Agency for Toxic Substances and Disease Registry (ATSDR) as required by CERCLA/ SARA. To date, it is still not clear what the significant differences are between ATSDR/DHS' Health Assessments and the Board's BPHE and Risk Assessments or how they will be involved in RAP/ROD decision-making since the HA will not normally be available until after the Board adopts a RAP. To date, no ROD has been knowingly held up because of ATSDR's HA.

Mitigating these potential delays is the fact that the Board has required interim remediation, the definition work has been mostly completed (NSC OU#2), and the Board can implement enforcement quickly where needed and necessary. Staff is aware of slippages and is working to assure completion to the amended schedule as well as preventing further slippage. At this time no enforcement is planned.

Internal over expenditures by site are primarily caused by several administrative problems:

- Within the tasks, CALSTARS reports utilized currently do not provide an

appropriate breakout between indirect costs and contract costs.

- Within the task by site, over expenditures are caused by the implementation of specific site budgets where none existed before and unanticipated work or difficulty of work that could not be foreseen by the original budget. With the new award of July 1993, redirection corrected this problem (by task) as it stood then, but additional, unanticipated site work has caused some over expenditures on some of the sites. For tracking purposes, the overall *total* grant budget must be utilized.
- The grant award was late due to delays in the submission and award; earlier over expenditures were covered by previous award budgets and were partially reconciled with the previous grant award budget redirections. No additional overall funding is requested at this time, but additional redirections were made with the September 1994 award and will be needed again. It is expected that redirections and a "clean-up" and reconciliation adjustment of the grant will be necessary in CY 1995.
- To facilitate cost-recovery, all non-site specific work (Tasks A, B, etc.) is allocated monthly to the MSCA sites in proportion to the site activity for the month. Again, the real test of budget and spending at this time is to compare the *total* "bottom line".

Under expenditures are usually caused by changes in work, over estimation of work (usually anticipated problems do not appear), delays in site cleanup (staff work not able to be performed due to project delays and awaiting reports), and changing requirements (reducing significant assistance at the MEW sites).

The table on page III-6 is a summary of the grant budget status of all the sites and shows the approved budget and total accumulated expenditures for staffing, expenses and contracts during the quarter and the life of the Cooperative Agreement (Phase II) since initial award April 13, 1988, including the July 90, May 91, June 92, July 93, and September 94 awards. The Regional Board Program Manager may

MSCA Tasks Status (cont.)

request a redirection between sites to reconcile sites budgets in 1995. No overall increase in total budget is foreseen due to these charges at this time (in fact a decrease from the forecasted budget was made in the recent grant award.

Forecasted MSCA Tasks and Activities

Next 3 - 6 Months:

--Activity continues, as shown in the MSCA Schedule (see page III-5), to develop NSC's OU#2 RI/FS, and finalizing Rhône-Poulenc's Wetlands RI/FS and RAP.

--Maintain time schedules in Community Relations Plans in coordination with overall schedule, especially NSC and Rhône-Poulenc sites.

SOUTH BAY MSCA SCHEDULE

(updated 2/21/95 by RWQCB; # indicates change since last report)

Site	RI/FS and RAP Completed and Available for Public Comment		Final RAP/ROD Adopted	
	mo/yr	FFY/Q	mo/yr	FFY/Q
1. Advanced Micro Devices - Arques	RI/FS adopted; ROD signed; RA and O&M underway			
2. Advanced Micro Devices - Bldg 901/902	RI/FS adopted; ROD signed; RA and O&M underway			
3. Advanced Micro Devices 915	RI/FS adopted; ROD signed; RA and O&M underway			
4. Applied Materials	RI/FS, RAP adopted; ROD signed/amended; RA and O&M underway			
5. CTS Printex	RI/FS and RAP adopted; ROD signed; RA and O&M underway			
6. Fairchild, San Jose	RI/FS and RAP adopted; ROD signed; RA and O&M underway			
7. Hewlett Packard, 1501 Page Mill	RI/FS compl.; RAP adopted by RWQCB 8/17/94; RA and O&M underway			
8. Hewlett Packard, 640 Page Mill	RI/FS compl.; RAP adopted by RWQCB 9/21/94; RA and O&M underway			
9. Hexcel	RAP/ROD Sep 93, but now no longer part of the MSCA (NPL delisting)			
10. Intel Magnetics / Micro Storage	RI/FS adopted; ROD signed; RA and O&M underway			
11. Intel Santa Clara III	RI/FS & RAP adopted; ROD signed; RA and O&M underway			
12. International Business Machines	RI/FS and RAP adopted; ROD signed; RA and O&M underway			
13. Intersil / Siemens	RI/FS and RAP adopted; ROD signed; RA and O&M underway			
14. National Semiconductor				
Operable Unit 1	RI/FS adopted; ROD signed; RA and O&M underway			
Operable Unit 2	TBD(late 95)	TBD(late 95)	TBD(early 96)	TBD(early 96)
15. Rhône Poulenc/Sandoz Crop Prot Corp				
Uplands Operable Unit	RI/FS adopted; ROD signed; RA completed 11/92 (Annex ESD 3/94)			
Wetlands Operable Unit	TBD(7/95?)	TBD (95/3?)	TBD (9/95?)	TBD (95/4?)
16. Signetics	RI/FS adopted; ROD signed; RA and O&M underway			
17. Solvent Services	RI/FS & RAP adopted; ROD signed; RA and O&M underway			
18. Spectra Physics	RI/FS adopted; ROD signed; RA and O&M underway			
19. Synertek 1	RI/FS & RAP adopted; ROD signed; RA and O&M underway			
20. Teledyne	RI/FS adopted; ROD signed; RA and O&M underway			
21. TRW/FEI Microwave	RI/FS adopted; ROD signed; RA and O&M underway			
22. Van Waters & Rogers	RI/FS and RAP adopted; ROD signed; RA and O&M underway			

TBD=To Be Determined

Notes: Federal lead sites, for which RWQCB receives funding under MSCA for its support activities, have identical milestones, but are not included here since the RWQCB is not directly responsible for meeting those time schedules. The State-required RAPs are final when the NBAR is completed; does not affect the Federal Superfund process, only state required Non-Binding Allocation of Responsibility (i.e. NBAR).

MSCA EXPENDITURE/DRAWDOWN DATA
MULTI-SITE THROUGH 12/31/94

MSCA PHASE II PROJECT #	ACCOUNT NUMBER	AMOUNT AUTHORIZED	BAL OF AWARD 09-V-005	AWARD 09-V-009 07/09/93	AWARD 09-V-010 09/29/94	TOTAL AUTHORIZED	ALL FISCAL YEAR DATA				
							CUM EXP	CUM DRAWS	DIFF	NEXT DRAW	UNABLE TO DRAW
MSCA02-00		0.00				0.00	0.00	0.00	0.00	0.00	0.00
MSCA02-01		0.00				0.00	0.00	0.00	0.00	0.00	0.00
MSCA02-02	K382/KN82/KP82	157,528.00	12,945.00	28,000.00	7,846.00	206,319.00	152,740.04	152,577.61	162.43	162.43	0.00
MSCA02-03	K3H1/KNH1/KPH1	130,184.00	12,945.00	34,004.00		177,133.00	105,560.25	105,317.37	242.88	242.88	0.00
MSCA02-04	KP83	245,248.00		58,743.00	82,790.00	386,781.00	348,954.65	346,030.37	2,924.28	2,924.28	0.00
MSCA02-05	K384	37,378.00	11,030.00			48,408.00	7,721.47	7,721.47	0.00	0.00	0.00
MSCA02-06	KP62	46,543.00		22,760.00	71,069.00	140,372.00	83,146.04	82,567.01	579.03	579.03	0.00
MSCA02-07	KN85/KP85	271,777.00		165,321.00	6,381.00	443,479.00	337,319.15	335,539.41	1,779.74	1,779.74	0.00
MSCA02-08	KNH9/KPH9	407,106.00		152,700.00	17,116.00	576,922.00	475,132.27	473,001.69	2,130.58	2,130.58	0.00
MSCA02-09	K340/KN40/KP40	71,058.00	11,030.00	27,559.00	28,416.00	138,063.00	75,572.24	75,139.26	432.98	432.98	0.00
MSCA02-10	K386	38,408.00				38,408.00	6,003.90	6,003.90	0.00	0.00	0.00
MSCA02-11	KP88	118,452.00	11,030.00	18,150.00	51,820.00	199,452.00	154,767.53	154,265.58	501.95	501.95	0.00
MSCA02-12	KN87/KP87	170,899.00	11,030.00	18,150.00	49,802.00	249,881.00	195,665.61	195,502.60	163.01	163.01	0.00
MSCA02-13/20	KNJ2/KPJ2	118,345.50	11,030.00	30,164.00	32,914.00	192,453.50	124,015.15	123,902.38	112.77	112.77	0.00
MSCA02-14	KP89	47,178.00		28,371.00	31,398.00	106,947.00	61,880.61	61,873.08	7.53	7.53	0.00
MSCA02-15	K3C7	4,620.00				4,620.00	0.00	0.00	0.00	0.00	0.00
MSCA02-16	KP90	217,117.00		49,803.00	37,983.00	304,903.00	256,327.13	256,120.72	206.41	206.41	0.00
MSCA02-17	KP91	300,623.00		33,085.00	121,250.00	454,958.00	400,957.80	399,791.03	1,166.77	1,166.77	0.00
MSCA02-18	K3H5/KNH5/KPH5	151,844.00	10,063.00	17,889.00	33,777.00	213,573.00	160,053.61	159,959.95	93.66	93.66	0.00
MSCA02-19	K393	28,408.00				28,408.00	5,880.53	5,880.53	0.00	0.00	0.00
MSCA02-20	K3J2	118,345.50				118,345.50	102,398.22	102,289.45	108.77	108.77	0.00
MSCA02-21	KN94/KP94	125,380.00	12,945.00	31,904.00	18,140.00	188,369.00	137,803.44	137,596.44	207.00	207.00	0.00
MSCA02-22	K3K1/KNK1/KPK1	162,354.00	14,530.00	31,958.00	3,997.00	212,839.00	172,327.69	167,878.31	4,449.38	4,449.38	0.00
MSCA02-23	K3K3/KNK3/KPK3	127,045.00	11,030.00	18,150.00	21,067.00	177,292.00	124,529.83	124,309.93	219.90	219.90	0.00
MSCA02-24	K3K4/KNK4/KPK4	165,091.00	12,945.00	28,103.00		206,139.00	141,451.04	141,245.51	205.53	205.53	0.00
MSCA02-25	K395/KN95/KP95	157,952.00	14,530.00	31,958.00	11,949.00	216,389.00	176,006.51	172,615.92	3,390.59	3,390.59	0.00
MSCA02-26		0.00				0.00	0.00	0.00	0.00	0.00	0.00
MSCA02-27	K396/KN96/KP96	206,905.00	10,063.00	21,984.00	2,354.00	241,306.00	193,937.97	192,358.07	1,579.90	1,579.90	0.00
MSCA02-28	K397/KN97/KP97	38,408.00	8,770.00	16,371.00	18,760.00	82,309.00	38,241.54	38,173.19	68.35	68.35	0.00
MSCA02-29	KN98/KP98	431,680.00		169,790.00		601,470.00	508,877.21	503,769.03	5,108.18	5,108.18	0.00
MSCA02-31	K3F6/KNF6/KPF6	38,591.00	5,305.00	9,168.00	4,149.00	57,213.00	11,116.51	11,115.20	1.31	1.31	0.00
MSCA02-32	K3J9/KNJ9/KPJ9	164,154.00	11,030.00	18,150.00	2,464.00	195,798.00	147,614.62	146,853.66	760.96	760.96	0.00
MSCA02-33	KNJ1/KPJ1	277,412.00		116,753.00		394,165.00	272,901.87	272,782.55	119.32	119.32	0.00
MSCA02-34	KPR3	27,997.00		15,405.00	35,629.00	79,031.00	40,734.04	40,285.57	448.47	448.47	0.00
MSCA02-35	KP47	8,078.00		33,745.00	32,043.00	73,866.00	35,749.97	35,734.91	15.06	15.06	0.00
MSCA02-36	KNM6/KPM6		206,989.00	49,369.00		256,358.00	8,367.92	8,358.86	9.06	9.06	0.00
		4,612,109.00	399,240.00	1,277,507.00	723,114.00	7,011,970.00	5,063,756.36	5,036,560.56	27,195.80	27,195.80	0.00
				SITE 64		1,213,951.00					
						8,225,921.00					
				IPA		67,358.00					
				TOTAL		8,293,279.00					

PROGRAM ELEMENT A: PROGRAM MANAGEMENT

The RWQCB is responsible for continued coordination and implementation of the South Bay MSCA Program. These activities include, but are not limited to, the following:

- *Maintaining the direction, scope, and quality of the South Bay Program*
- *Planning and oversight of the overall program schedule and budget*
- *Interagency coordination*
- *Staffing requirements and recruitment*
- *Supervision of Community Involvement*
- *Program analysis and development*
- *Supervision of procurement*

Product

The products for Task A are the successful completion of all the tasks identified and funded under this phase of the South Bay MSCA.

Additionally, most site-file cost-recovery work will be initially charged against this task with allocation among the sites made later depending upon the actual work necessary to establish and maintain individual site-specific cost files.

Within the overall program management, the most significant program management activities during this period involved the coordination / management necessary to meet MSCA time schedules; updating the SMS; and day to day supervision and management of ongoing MSCA tasks at ROD adopted sites (i.e. ongoing RD/RA and O&M).

State Budgeted Activities

Task A involves supervising and implementing specific tasks (i.e. contracts) included in the MSCA. There is no existing state-funded budget provided for this activity. All Task A funding is MSCA funded by site.

Costs

The expenditures for the quarter as well as the grant period through 30 September 1994 are combined with the other tasks and included in the Program Budget Table on page 6.

PROGRAM ELEMENT B: SITE MANAGEMENT SYSTEM

Task Description

Under the earlier and current MSCA agreements the RWQCB implemented a computerized system to track RI (site remedial investigation), FS (feasibility studies / alternatives evaluation), and the implementation of remedial action activities for use of the RWQCB, Cal/EPA-DTSC and EPA management personnel for use in site enforcement and task tracking.

Additionally, as part of the community involvement program the SMS has been distributed to 15 municipal agencies, 9 libraries, 7 state and federal agency representatives, 2 environmental groups, and 1 manufacturers group, as well as sold (for reproduction costs) to those desiring it (primarily consultants).

Products

The Board has changed the SMS according to the revised workplan. The 1992-93 workplan supported a significantly reduced SMS effort, at least for the "paper" portion. Regional Board implemented this "new" SMS in early 1993 utilizing a computer Bulletin Board format with a computer purchased in December 1992 utilizing MSCA funds. The BBS portion went on-line March 18, 1993. The yearly updated paper edition was updated May 1994 with an as-of date of early 1994 and distributed to EPA, Cal/EPA-DTSC, and various governmental and public agencies and interest groups.

Continuing updates until the next annual paper update will be maintained for public and staff access on the BBS. A paper update is expected in May 1995.

State Budgeted Activities

There is no existing State-funded budget or activities for the Site Management System.

Cost

Expenditures for Task B are included in the Program Costs Table on page 6.

PROGRAM ELEMENT D: COMMUNITY INVOLVEMENT

Task Description and Objectives

The main objectives of community involvement activities performed under the MSCA are:

Provide the general public with information on ground water systems, water supply sources, water quality, hazardous waste regulatory processes, and scope, progress and findings of remedial response activities.

Provide sufficient background information about technical and environmental issues to help the public understand and assess remedial actions.

Provide information, especially technical findings, in a form understandable to the general public.

Provide elected officials and the media with timely detailed information at key points throughout program activities.

Use the media as a major means of disseminating information to the general public.

Establish a two-way information exchange with environmental, public interest, and other concerned groups throughout the remedial response program.

Provide the means for all interested individuals to express concerns and make inquiries throughout project activities. (the opportunity for two-way communication is particularly important because of the length and complexity of the project).

Use the Groundwater Task Force, for overall coordination and review of community involvement efforts.

Create an interagency community involvement team to further coordinate the flow of information from agencies to the public.

Monitor public concerns and information needs

Modify the community involvement plan(s) to respond to changes in community attitudes and needs.

Community involvement activities conducted under the MSCA function independently, but coordinated with, EPA's area wide (but limited) community involvement strategy as well as DHS's site community involvement programs. Specifically, the RWQCB will be responsible for providing information and directing community involvement activities for RWQCB-lead sites.

Community Involvement activities are now significantly reduced as the IGA staff on-loan from EPA returned to EPA in October 1993 and all Community Involvement work will now be handled by Board staff. Losing the full-time staff is mitigated by the reduced workload with only several sites awaiting completion of RAP/RODs as well as significant planning to assure a satisfactory transition.

Products

Per earlier explanation, all Community Involvement activities are now combined into the project managers' tasks of site oversight.

Future Activities

Future activities are currently scheduled to meet the MSCA Special Conditions, especially for the sites awaiting final RAP/RODs.

Costs

All costs for Community Involvement are now included in the other tasks as part of the every day work. All Community Involvement work will now be performed by state employees. See the Table on page III-6 for overall grant budget status that includes Community Involvement costs by site.

PROGRAM ELEMENT E: TIER I ACTIVITIES

Tier I activities are those activities that occur at specific sites in the South Bay.

TASK E1.* IDENTIFICATION OF NEW
SITES

TASK E2. RWQCB OVERSIGHT OF
NPL PRP ACTIVITIES

TASK E1a.* SCREENING OF NEW SITES
IN ORDER TO CONDUCT
Pas ON MOST SENSITIVE
SITES

TASK E1b.* OVERSIGHT OF PRP SI

*Note: These tasks were not requested for funding in this Phase; they may be considered at a later time if conditions change.

TASK E2. RWQCB OVERSIGHT OF NPL PRP ACTIVITIES

Regional Board activities in this task cover the RI/FS oversight RD/RA and/or regulation underway at the 30 South Bay MSCA Superfund sites (31 companies/agencies either final and proposed including Liquid Gold and United Heckathorn in Richmond) for which the Board as a regulatory agency has either the current lead (21) or the supporting agency role (9). The current Agency-Lead and NPL Status as of this report are covered below.

EPA Lead Superfund Sites:

- *1. Fairchild Semiconductor Corp.,
464 Ellis St., Mountain View
- *2. Intel Corp., 365 E. Middlefield Rd.,
Mountain View
3. Jasco Chemical Company, 1710 Villa St.,
Mountain View
4. Lorentz Barrel and Drum, 1515 S. 10th St.,
San Jose
- * Moffett Naval Air Station, Sunnyvale
(*no longer part of South Bay MSCA*)
- *5. Raytheon Company, 350 Ellis St.,
Mountain View
6. United Heckathorn, Richmond
7. Westinghouse Electric Corporation, 401 E.
Hendy Ave., Sunnyvale

RWQCB Lead Superfund Sites:

- *1. Advanced Micro Devices, 901 Thompson
Pl, Bldg.901, Sunnyvale
2. Advanced Micro Devices, Bldg. 915., 915
Deguigne Dr., Sunnyvale
- *3. AMD-Arques, (formerly Monolithic
Memories, Inc.), 1165 East Arques Ave.,
Sunnyvale
4. Applied Materials, 3050 Bowers Avenue,
Santa Clara
5. CTS Printex, 1905-1931 Plymouth St.,
Mountain View
6. Fairchild Camera and Instrument Corp.,
Bernal Road, San Jose
7. Hewlett-Packard, 640 Page Mill Rd., Palo
Alto
8. Hewlett-Packard, 1501 Page Mill Rd., Palo
Alto
- * Hexcel, Livermore
(*no longer part of South Bay MSCA*)
9. Intel Facility III, 2880 Northwestern
Parkway, Santa Clara
10. Intel Magnetics/MicroStorage, 3000
Oakmead Village Dr., Santa Clara
11. International Business Machines, Cottle
Road, San Jose

- *12. Intersil, Inc., and Siemens Components,
Inc., Cupertino
- *13. National Semiconductor, 2900
Semiconductor Dr., Santa Clara
14. Rhône-Poulenc/Sandoz, 1990 Bay Road,
East Palo Alto
- *15. Signetics, 811 E. Arques, Sunnyvale
16. Solvent Services, 1022 Berreyessa Road,
San Jose
- *17. Spectra-Physics, Inc., 1250 West
Middlefield Road, Mountain View
18. Synertek #1, Santa Clara
- *19. Teledyne Semiconductor, 1300 Terra Bella
Ave., Mountain View
- *20. TRW Inc., 825 Stewart Pl., Sunnyvale
21. Van Waters & Rogers, Inc., 2256 Junction
Ave., San Jose

* above sites will be treated as part of a combined site, at least for off-site work.

Cal/EPA-DTSC Lead Superfund Sites:

1. Liquid Gold, Richmond

EPA NPL Modifications (RCRA "drop" sites):

EPA's proposed rule-making in June 1988, (NPL Update #7) recommended that 6 NPL sites be deleted from the NPL since they are RCRA sites. Two other RCRA sites were proposed to be retained on the NPL. RWQCB officially commented to EPA-HQ on this proposal to delete high-priority RCRA sites by questioning the timeliness of the RCRA regulation update, future MSCA funding for these CERCLA/RCRA sites, and the lack of Technical Assistance Grants to citizen groups for RCRA (only) sites. EPA-IX has stated that the RCRA sites (proposed deleted and those remaining) will be treated as NPL sites to assure attention to cleanup appropriate to their NCP HRS scoring.

On October 4, 1989, EPA announced its final rule on the dropping of some of the NPL sites that are also RCRA sites. Under this rule, the following sites have been dropped from the NPL:

Hewlett-Packard, 1501 Page Mill Road
IBM, San Jose
Rhône Poulenc/Sandoz, East Palo Alto
Signetics, Sunnyvale
Van Waters and Rogers, San Jose

EPA and the Board, per policy, continue to treat the RCRA "drop" sites the same as NPL sites in terms of requirements, tasks, and cleanup. Due

Task E2 - Site Oversight (cont.)

to staffing constraints, the RWQCB's final Site Cleanup Order adopting the RI/FS and RAP will be the last regulatory action. Review and comment on the RWQCB's SCO by EPA-IX will suffice for approval unless the EPA is in disagreement with the RWQCB's actions.

Products during Reporting Period:

Regional Board actions / Orders affecting the South Bay MSCA:

October: IBM NPDES Reissuance

November: Philips NPDES Reissuance

December: Teledyne & Spectra-Physics NBAR

South Bay MSCA Superfund Site Cleanup Decisions (Remedial Investigations/Feasibility Studies/Remedial Action Plan): All the South Bay Superfund sites have performed significant amounts of work to meet Superfund final cleanup decision requirements. The tasks remaining are necessary to meet State and Federal Superfund (almost all of which the State requires as well) requirements to determine the best alternative cleanup plan considering protection of public health and the environment as well as the maintenance (i.e. high quality groundwater) and protection of the resource (i.e. water conservation and reclamation).

Board staff conducted the following tasks as detailed in the EPA OSWER Memorandum dated October 1, 1986, entitled, "CERCLA Funding of Oversight of Potentially Responsible Parties by States at National Priority List Sites."

Review Tasks (all sites):

- Reviewed and commented on scope of work and work plans (all work plans requested and approved as of August 1990; updating due to operable units still may be necessary)
- Reviewed and commented on updates to Safety Plans
- Reviewed and Commented on drafts of portions of RI reports (all)
- Reviewed/discussed FS objectives
- Completed PRP reports (all)
- Organized and participated in technical meetings on the RI/FS with PRPs, PRP contractors, and/or EPA. (all)
- Provided Technical Support to the Community Relations Task for:

Briefing of local and state officials

Prepared fact sheets and press releases

Field Related Tasks:

- On-site presence/inspection as necessary (all)

In addition, at RWQCB lead sites the following tasks were in progress by RWQCB staff or contracted by the RWQCB:

- Data Validation (all by IAG with DHS)
- Public Health Baseline Evaluation
(all work other than by PRP is by EPA or by contract award to ICF/Clement for both BPHE, BPHE review, and RI/FS review)
- Maintenance of the Administrative Record
(primary use of PRPs for initial preparation)
- Continue Implementation of Cost Recovery
(all)

For those sites where the RWQCB is the Support Agency, staff provided support in the tasks described above to the extent necessary but not to exceed the staffing levels previously approved. Sites primarily affected: MEW, Lorentz, United Heckathorn, Westinghouse, JASCO, Liquid Gold.

For those sites under Regional Board lead, the IBM, Fairchild San Jose, Applied Materials, Intel SCIII, Intersil/Siemens, Solvent Services, AMD 901/902, AMD 915, AMD Arques, CTS Printex, National Semiconductor OU#1, Microstorage/Intel Magnetics, Signetics, Rhône-Poulenc/Sandoz (Uplands OU), TRW/FEI Microwave, Teledyne, Spectra-Physics, Synertek #1, Van Waters & Rogers, Hewlett-Packard 640 and 1501 Page Mill Road sites, and Hexcel (now delisted), sites have completed the RI/FS and RAP and a ROD have been signed in this MSCA grant phase (See Table, Page III-5).

Costs and Budgets: Even with the addition of the latest grant awards and the budget redirection among sites, some **site specific** over-and under-expenditures are occurring. While no new grant funds were required, proposed redirection among sites in the September 1994 award have been made, and it now appears that further redirection will be necessary late CY 1995.

Task E2 - Site Oversight (cont.)

The following is a description of the MSCA funded staff work and the current status at each of the MSCA Superfund sites.

REGIONAL BOARD LEAD SUPERFUND SITES:

ADVANCED MICRO DEVICES 901-902, SIGNETICS, TRW (FEI) MICROWAVE (THE COMPANIES)

The Final Remedial Action Plan (RAP) for the combined site(s) was adopted by the Board in June 1991. EPA adopted the ROD in September 1991.

Advanced Micro Devices (AMD) is continuing to implement the site cleanup plan. Site remediation at the AMD site consists of extraction and treatment of groundwater, and excavation of approximately 37 cubic yards of residual soil contamination.

During the last quarter, groundwater extraction continued at 8 on-site extraction wells. The total volume of groundwater extracted during the quarter was 3.4 million gallons, averaging 24 gpm. A total of 26 pounds of VOCs were removed from the groundwater. Extracted water is treated utilizing an air stripper, and discharged under NPDES permit.

During the next two quarters, AMD will continue groundwater extraction and treatment.

TRW Microwave is continuing to implement the site cleanup plan. Site remediation at the TRW site consists of extraction and treatment of groundwater and soil vapor extraction. Because residual soil contamination at the site is minimal and at depths below the groundwater table, no further soil remediation has been required.

During the last quarter, groundwater extraction continued at 7 groundwater extraction wells and an eductor pit. Groundwater was extracted at approximately 18.3 gallons per minute, and the total volume extracted during the quarter was 2.7 million gallons. A total of approximately 37 pounds of VOCs were removed from the groundwater. Extracted water is treated utilizing an air stripper and discharged under NPDES permit. The system was shut down for a two week period for repairs to electrical and mechanical components.

Although no further soil remediation has been required, TRW operates a soil vapor extraction system adjacent the eductor pit to enhance groundwater remediation. During the third and fourth quarters, a total of 12 monitoring points were installed in the area; seven of the points have been converted to extraction points. During the fourth quarter, the SVE system removed a total of 4

pounds of VOCs. Groundwater monitoring generally shows a continued decline in groundwater contamination levels.

During the next two quarters, TRW will continue groundwater and soil vapor extraction and treatment.

Philips Semiconductors (formerly Signetics) is continuing to implement the site cleanup plan. Site remediation at the Philips Semiconductors site consists of extraction and treatment of groundwater and soil vapor extraction.

During the last quarter, groundwater extraction continued at extraction wells, extraction trenches, and basement dewatering systems. Because of staff changes at Philips Semiconductors and their consultant, fourth quarter monitoring data is not available. However, during the third quarter, the total volume of groundwater extracted was 12.4 million gallons, and a total of approximately 400 pounds of VOCs were removed from the groundwater. Extracted water is treated utilizing an air stripper, and discharged under NPDES permit. The soil vapor extraction system removed a total of 6.5 pounds of VOCs. The cumulative mass of VOCs removed since October 1988 was 731 pounds.

During the next two quarters, Philips will continue groundwater extraction and treatment. In addition, Philips will submit a proposal to operate the soil vapor extraction system on a pulse pumping schedule. On 11/16/94, the Regional Board reissued the existing NPDES permit for the groundwater pump and treat system.

TRW, Philips, and AMD are continuing to implement the site cleanup plan for the Off-Site Operable Unit, the area north of the TRW/AMD/Philips sites which appears to be impacted by all three sites. Remediation at the Off-Site Operable Unit consists of two groundwater extraction systems, one located along Alvarado Avenue, the other along Duane Avenue.

During the last quarter, groundwater extraction continued at the Alvarado and Duane Avenue extraction systems. Groundwater was extracted at rates of approximately 152 gallons per minute. The total volume extracted during the quarter was 19 million gallons. A total of 137 pounds of VOCs were removed from the groundwater. Extracted water is treated utilizing air strippers and discharged under NPDES permit.

Task E2 - Site Oversight (cont.)

During the next two quarters, the companies will continue groundwater extraction and treatment.

ADVANCED MICRO DEVICES, BUILDING 915, 915 DEGUIGNE DRIVE, SUNNYVALE

Advanced Micro Devices (AMD), is continuing to implement the site cleanup plan specified in the ROD adopted in August 1991. Groundwater is being remediated via groundwater extraction and treatment. All contaminated soil has been removed from the site. During the last quarter, groundwater extraction continued at 9 on-site extraction wells. The total volume of groundwater extracted during the quarter was 7.5 million gallons, averaging 51 gpm. A total of 34 pounds of VOCs were removed from the groundwater. Extracted water is treated utilizing an air stripper, and discharged under NPDES permit. The groundwater contamination plume appears to be contained beneath the site, and appears to be impacted from upgradient sources.

During the next two quarters, AMD will continue groundwater extraction and treatment.

APPLIED MATERIALS, INC. BUILDING 1, 3050 BOWERS AVENUE, SANTA CLARA

The final Remedial Action Plan (RAP) for the Building 1 site was adopted by the Board in September, 1990. A ROD for a groundwater Operable Unit was adopted 9/28/90; a Final ROD was adopted 8/25/93. A Superfund Preliminary Close Out Report was issued 9/27/93. The Cleanup Plan for this site includes only groundwater extraction and treatment by air stripping.

Activities this quarter: Under the new reporting schedule proposed by the Discharger and accepted by Staff, the reporting frequency for Self-Monitoring Reports is now semi-annually; the next report, called the Annual Report, will be submitted in March, 1995. The NPDES reports which had been submitted monthly are now submitted quarterly, and the next one will be submitted in February, 1995. The annual site inspection was conducted on December 1, 1994. The waste discharge and site cleanup activities were in compliance with Board Orders. Applied Materials (AM) submitted an addendum to the Five-Year Status Report and Effectiveness Evaluation on December 1, 1994, in response to Staff comments. Staff continued the review of the Five-Year Status Report and associated documents, and began compiling a written Staff Report.

Projected events for next two quarters: Staff expects to complete the review and Staff Report for the Five-Year Status Report, and will address AM's proposal to

categorize the site as a Non-Attainment Area, and the question of DNAPL at this site, therein. AM is expected to submit the Annual Report required by the SCR Order, and the next-due NPDES self-monitoring report.

CTS PRINTEX, 1905, 1911, 1921, AND 1931 PLYMOUTH STREET, MOUNTAIN VIEW

The Final RAP was approved on May 15, 1991 under Site Cleanup Order No. 91-081. The cleanup plan consists of extraction and treatment of groundwater until cleanup standards are met, and long term monitoring.

During the last quarter, CTS extracted about 300,000 gallons of water and discharged this waste to the POTW. The remediation system began extracting groundwater in 1987. Since then, approximately 97.4 million gallons of groundwater and 97.5 pounds (approximately 7.8 gallons) of TCE have been removed. Significant reductions in TCE concentrations were achieved during the first years of operation. However, monitoring well data show that TCE concentrations are approaching asymptotic levels.

CTS has proposed three alternatives for modifying groundwater pumping and monitoring at the site. Two alternatives specify pumping from selected wells to optimize VOC extraction. The third alternative is to develop a Non-Attainment Zone for the site.

During the next six months, CTS will continue groundwater monitoring and extraction. Board staff will meet with CTS to discuss their proposed alternatives. Board staff will also continue investigations of upgradient sources.

FAIRCHILD, SAN JOSE

The final Remedial Action Plan (RAP) was adopted by the Regional Board in January 1989 and amended in May 1990. It included continued groundwater extraction (on and off-site) and SVE for dewatered zones within the on-site slurry wall. The RAP set cleanup standards for on-site groundwaters at MCLs and for off-site groundwaters at less than one fourth the MCLs.

Board staff approved a temporary shut-down of the off-site extraction wells in December 1991. Computer modeling shows that groundwater pumping is ineffective in speeding up remediation of the aquifers at this site; the model predicts that off-site cleanup will take 15 years, whether or not off-site pumping occurs.

During the last quarter, Fairchild operated the on-site extraction system continuously at a rate of about 78 gpm, discharging the treated groundwater to the storm drain. Total discharge volume for the quarter was about 10

Task E2 - Site Oversight (cont.)

million gallons. Fairchild performed post-SVE soil borings and sealed a number of on-site and off-site wells per RWQCB staff's 10/6/94 and 12/9/93 approval letters. Fairchild submitted a design for a groundwater recharge project in 12/94 as required by its NPDES permit; the project would recharge treated groundwater just outside the slurry wall in lieu of a surface water discharge.

The off-site extraction wells were shut down as part of the approved demonstration project. The no-pumping program will continue for the next five years, provided the off-site plume remains stable. During this period, VOC concentrations did not increase or migrate, consistent with modelling results and prior sampling results.

During the next six months, Fairchild will continue on-site groundwater extraction. Fairchild will complete well-sealing activities previously authorized and will submit the results of its post-SVE soil sampling. Board staff will respond to Fairchild's groundwater recharge design, as will local agencies. Site redevelopment may begin, if local agencies approve the landowner's plan for a retail commercial development on the site.

HEWLETT-PACKARD, 640 PAGE MILL ROAD, PALO ALTO

Background: The Regional Board adopted final site cleanup requirements for the California, Olive and Emerson Streets (COE) area, which includes the 640 and 395 Page Mill Road and Varian 601 California street sites, in September 1994. The Record of Decision (ROD) has not yet been adopted by U.S. EPA. The approved cleanup plan includes soil vapor extraction, groundwater extraction, and associated treatment.

Last Quarter: The current groundwater extraction and treatment system consists of three wells on the HP 640 site, eight wells in the COE area, and four wells at the Varian 601 site. The system extracted and treated about 4.7 million gallons last quarter. Soil vapor extraction consists of 18 SVE wells at the Varian 601 site and 15 SVE wells at the HP 640 site. On December 1, 1994, HP and Varian submitted a workplan for installation of an expanded groundwater extraction and treatment system. The workplan proposes installation of four additional off-site extraction wells. Board staff approved this workplan in late January. HP also submitted technical reports documenting procedures to be implemented for deed restrictions at the 640 and 395 Page Mill Road sites.

Next Two Quarters: HP and Varian will continue operating the SVE and groundwater extraction and treatment system. HP and Varian will submit a technical

report evaluating the effectiveness of the existing soil vapor extraction and treatment system in July 1995. Construction of the expanded groundwater extraction is expected to be completed by October 1995. EPA will adopt the ROD soon.

HEWLETT-PACKARD, 1501 PAGE MILL ROAD, PALO ALTO

Background: The Regional Board adopted final site cleanup requirements in August 1994. The approved cleanup plan requires Hewlett-Packard (HP) to expand its soil vapor extraction and groundwater extraction system at this site.

Last Quarter: HP continued to operate soil vapor extraction and groundwater extraction facilities, extracting about 1.9 million gallons of groundwater last quarter. On December 1, 1994, HP submitted three technical reports: an evaluation of groundwater reuse alternatives and two workplans for installation of expanded soil vapor and groundwater extraction and treatment systems. HP recommends on-site landscape irrigation. HP installed five off-site and one on-site extraction wells, in addition to the existing six extraction wells. HP proposes to convert about 15 monitoring wells to extraction wells. HP proposes to install three new soil vapor extraction wells in addition to the existing five wells.

Next Two Quarters: HP will continue operating the soil vapor extraction and groundwater extraction systems. On February 8, 1995, Board staff commented on these reports. HP will complete design of the expanded groundwater system at the end of this month and will complete construction in September 1995. HP will submit design of the expanded soil vapor extraction in June 1995, and will finish construction in October 1995.

HEXCEL CORPORATION, LIVERMORE, ALAMEDA COUNTY

No longer part of MSCA

INTEL, SANTA CLARA III, Santa Clara

The Final RAP for the site was adopted by the Board in July 1990. The cleanup plan for this site consists of groundwater extraction and treatment by carbon adsorption. Intel submitted a report titled "Cyclic Pumping Demonstration Project, Evaluation and Evaluation Recommendations for Further Actions" in late 1991. Cyclic pumping (also known as pulsed pumping) is believed to be a method for improving groundwater remediation efficiencies.

Task E2 - Site Oversight (cont.)

Based on this October 1991 report, Intel has tried both 60-day on/60-day off and 120-day on/120-day off pumping cycles. Intel has submitted effectiveness reports on these cycles that conclude that these pumping cycles are no more efficient than continuous pumping. In response to requests by Board staff, Intel proposed a new demonstration project involving various cyclic pumping schemes that began on January 15, 1993. These additional pumping trials did not show any significant improvement over the previous trials or continuous pumping. After meeting with Intel to discuss the latest cyclic pumping results, Board staff approved Intel's request for a twelve month trial period with all pumps off. During this trial, monitoring wells were sampled quarterly to determine if there were any plume migration or concentration changes. The monitoring results of this twelve month off trial indicate no significant migration or changes in plume concentrations. or Intel has submitted a petition requesting that the Board change the point of compliance with the site's groundwater cleanup standards from all areas of the site, to the property boundary of the site. Intel claims that groundwater cleanup standards are not likely to be met onsite using available technology and that groundwater extraction is no longer providing significant reduction of groundwater contamination. Intel believes that remaining contamination will not migrate from the site and that the site can be managed such that there is minimal risk from the remaining contaminants in the groundwater. Board Staff has reviewed the petition and have solicited USEPA's opinion on this issue. Intel has also requested that this site be delisted from the NPL.

Activities this quarter: The groundwater extraction system was not operating due to the twelve month trial period during which the extraction system was shut down. The extraction system remains shut down.

Projected events for the next two quarters: Board staff will review the results of the twelve month pumps off trial period. The five year review for this site is scheduled to occur in 1995. Board Staff, Intel, and USEPA met to discuss the issues at this site in January 1995, but came to no imminent changes at this time although it is expected that the RWQCB will probably consider this site for NAZ later this year.

INTERNATIONAL BUSINESS MACHINES, SAN JOSE

The final Remedial Action Plan (RAP) was adopted by the Regional Board in October 1988. It set cleanup standards similar to those for Fairchild (San Jose) and included soil vapor extraction (on-site) and continued groundwater extraction (on and off-site).

During the last quarter, IBM extracted and treated about 78 million gallons of groundwater, reusing about 62 million gallons (or 79%) of this total volume. All on-site extracted groundwater was reused, by reinjection, landscape irrigation, or as feed water for industrial use. Most off-site groundwater was discharged to Canoas Creek. The soil vapor extraction system continued to be effective, removing about 1,450 pounds of VOCs and hydrocarbons from on-site soils during the quarter. The off-site groundwater plume remained stable, with slight increases in VOC concentrations in one well each in the C-aquifer and D-aquifer just off-site.

During the next six months, IBM will continue its cleanup program. IBM will attempt to close two private, off-site wells (Magic Sands MHP and Town & Country MHP) to eliminate a potential vertical conduit that may be the cause of increased VOC concentrations cited above.

MICRO STORAGE/INTEL MAGNETICS, SANTA CLARA

The Final Remedial Action Plan (RAP) for the site was adopted by the Board in July 1991. The Record of Decision (ROD) was signed in August 1991. The cleanup plan for this site includes groundwater extraction and treatment by carbon adsorption.

Activities this quarter: During the last quarter, operation of the groundwater extraction and treatment system continued with no NPDES violations. Approximately 844,392 gallons of groundwater were extracted, treated, and discharged into the storm drain.

Projected events for the next two quarters: The Board adopted an amendment to the final RAP in November 1993 naming International Diagnostic Technologies (IDT) and Boehringer Ingelheim (BI) as additional primary responsible parties. BI has appealed the amendment to the State Board. Board staff expects to receive the State Board's decision on the appeal sometime during the next two quarters. The discharger has submitted a request with their fourth quarter report that they be considered for inclusion under the Board's Non Attainment Policy, whereby the point of compliance for the groundwater cleanup standards be altered to allow an area where groundwater VOC levels exceed the cleanup standards specified for the site. The RWQCB staff does not expect to take action on this request within the next several quarters.

Task E2 - Site Oversight (cont.)

NATIONAL SEMICONDUCTOR CORPORATION & ADVANCED MICRO DEVICES (1165 ARQUES, FORMERLY MONOLITHIC MEMORIES), SUNNYVALE / SANTA CLARA

National Semiconductor Corporation (NSC), along with Advanced Micro Devices (AMD) is one of two dischargers located within an area in eastern Sunnyvale / western Santa Clara, designated as Operable Unit 1. OU1 has been subdivided into 3 subunits. NSC is responsible for remediating subunit 1, AMD is responsible for remediating subunit 2, and both NSC and AMD are responsible for remediating subunit 3 (the co-mingled area downgradient of both NSC and AMD). NSC is continuing to implement the cleanup plan specified in the ROD adopted in September 1991. Soil is being remediated utilizing soil vapor extraction. Groundwater is being remediated via groundwater extraction and treatment.

During the last quarter, 32 groundwater extraction wells were in operation within subunits 1, and 3 groundwater extraction wells and a large dewatering system were in operation in subunit 3. A number of others extraction wells were out of service because of low water levels. The total volume of groundwater extracted from subunits 1 and 3 (excluding the dewatering system) was over 28,000,000 gallons, averaging 219 gpm. The total VOC mass removed was 147 pounds. Three groundwater treatment systems are utilized to treat extracted groundwater, which is discharged under NPDES permit. Groundwater monitoring indicates that contaminant concentrations within the A and B1 aquifer have generally declined. SVE extraction systems are operational at three source areas. SVE system design and installation has been initiated at 7 other source areas.

During the next two quarters, NSC will complete design and installation the SVE systems at 7 source areas, and will continue to operate on and off-site groundwater extraction systems.

Advanced Micro Devices (AMD), along with National Semiconductor Corporation (NSC), is one of two dischargers located within an area in eastern Sunnyvale / western Santa Clara, designated as Operable Unit 1. OU1 has been subdivided into 3 subunits. NSC is responsible for remediating subunit 1, AMD is responsible for remediating subunit 2, and both NSC and AMD are responsible for remediating subunit 3 (the co-mingled area downgradient of both NSC and AMD). AMD is continuing to implement the cleanup plan specified in the ROD adopted in September 1991. Soil is being remediated utilizing soil vapor extraction.

Groundwater is being remediated via groundwater extraction and treatment.

During the last quarter, 12 groundwater extraction wells were in operation within subunit 2. The total volume of groundwater extracted from subunit 2 was 4.5 million gallons, averaging 38 gpm. The total VOC mass removed was 16.4 pounds. An air stripper is utilized to treat extracted groundwater, which is discharged under NPDES permit. Groundwater monitoring indicates that contaminant concentrations within the A aquifer has generally declined; however, B aquifer concentrations appear to be increasing. SVE extraction at one source area has continued to operate, removing a total of 7.6 pounds during the quarter. AMD also submitted a workplan for additional soil borings to confirm the effectiveness of the soil vapor extraction. Subunit 3 activities are described in the MSCA update for NSC.

During the next two quarters, AMD will collect soil samples from areas currently under soil vapor extraction, and will continue to operate the soil and groundwater remediation systems.

RHONE-POULENC/SANDOZ, EAST PALO ALTO

Background: In order to expedite investigation and cleanup, the Site was divided into Upland and Wetland Operable Units in 1991. The RAP/ROD for the Upland Operable Unit was approved February 1992. The remedial action plan consisted of: removal of highest concentration soil (>5,000 mg/kg arsenic); treatment of soil containing between 500-5,000 mg/kg arsenic; capping of all soil with concentration of arsenic >70 mg/kg; deed restrictions of any property containing >70 mg/kg arsenic; slurry wall to contain groundwater; and, a groundwater contingency plan to prevent further migration of pollutants. In order to expedite remediation further, the Ecological Assessment was divided into Non-tidal and Tidal Wetland Reports. Based on the Ecological Assessment report for the Non-tidal Wetland, the Upland OU RAP/ROD boundaries were amended using an Explanation of Significant Difference which was adopted in March 1994 to annex the Non-tidal Wetland portion of the Wetland OU into the Upland OU. The remedy adopted for the Upland OU was then applied to the Non-tidal Wetland area.. The revised draft Ecological Assessment for the Tidal Wetland was submitted to the agencies in June 1994. Upon approval of this document by the agencies, an Ecological Risk Assessment, Feasibility Study report and Proposed Plan shall be developed for the Wetland OU. A RAP/ROD for the Wetland OU may be completed during 1995.

Task E2 - Site Oversight (cont.)

Activities This Quarter: During the last quarter Board staff met with EPA, NOAA, USFWS, and Rhone-Poulenc to discuss the Ecological Assessment of the Tidal Wetland. Final comments on the Ecological Assessment were submitted by the agencies. Board staff also met with an adjacent property owner and Rhone-Poulenc to discuss cap designs for property. The final capping of the properties is scheduled for the spring or summer 1995.

Activities Anticipated The Next Two Quarters: Agencies and Rhone-Poulenc shall meet to discuss the Ecological Risk Assessment. The Ecological Risk Assessment will take about 3 months to complete and submit to the agencies. The Ecological Risk Assessment will then be used to develop a FS for the Wetland OU.

Work on finding an appropriate site and development of a wetland mitigation plan for the loss of wetlands destroyed during the implementation of the Upland OU Annex area RAP will continue. Should the schedule for the Wetland OU FS/RAP/ROD be accelerated, it may be possible to develop a comprehensive mitigation plan for the Upland OU Annex area and the Wetland OU together. Board staff estimate that a RAP/ROD for the Wetland OU may be completed during 1995.

SIEMENS COMPONENTS INC., 19000 HOMESTEAD ROAD, CUPERTINO; INTERSIL INC., 10900 N. TANTAU ROAD, CUPERTINO

Background: The Regional Board adopted final Site Cleanup Requirements (SCR) for these two adjacent Superfund sites in August 1990, and EPA issued a concurring ROD. The final SCR required additional groundwater extraction wells and soil vapor extraction wells. All work needed to implement the final SCR has been completed. Intersil has 7 groundwater extraction wells (an SVE system was successfully operated and has been removed). Siemens has 10 soil vapor wells and 18 groundwater extraction wells. The two companies jointly operate 3 extraction wells.

Last reporting period (semi-annual): Siemens/Intersil continued implementing the approved cleanup plan, extracting and treating 47 million gallons of groundwater and removing 97 pounds of VOCs (on-site and off-site). Both dischargers are concerned about remedial activities at the adjacent AMI site. AMI operates an on-site groundwater extraction system, and recently started up an off-site groundwater extraction system. Siemens/Intersil are concerned that AMI is not capturing its groundwater plume, and that the plumes will eventually commingle. They would like the Board to adopt site cleanup requirements for AMI.

Next two quarters: The dischargers will continue remediation activities. Regional Board staff will prepare draft Site Cleanup Requirements for AMI in 1995, if possible by 4/95.

SOLVENT SERVICE INC. (SSI), 1021 BERRYESSA ROAD, SAN JOSE

The Final Remedial Action Plan (RAP) for the site was adopted by the Board in August 1990. A ROD for this site was adopted 9/27/90. The site was removed from the NPL circa 8/90 and is now a RCRA site. The Cleanup Plan includes groundwater extraction/treatment and soil vapor extraction/treatment, and capping of the entire site. Steam-enhanced vacuum extraction has been discontinued because engineering evaluation showed that SVE was just as effective as SIVE and was less costly. Groundwater and vapor are treated by bio-treatment, carbon filtering and air stripping.

Activities this quarter: Solvent Service, Inc. (SSI) requested a modification to the self-monitoring program. SSI notified Staff that they would prepare and submit a proposal after January 1, 1995, to remediate off-site contamination.

Projected events for next two quarters: The periodic Self-Monitoring Reports will be submitted. Staff will respond to SSI's request to modify the self-monitoring program. A proposal addressing off-site migration of VOCs is to be submitted by SSI and reviewed by Staff. The submittal of SSI's 1994 Annual Summary Report is expected. Several Staff members may be called upon to respond to deposition subpoenas concerning operations of the SSI site.

SYNERTEK #1, SANTA CLARA

The Final RAP for the site was adopted by the Board in March 1991. The cleanup plan includes groundwater extraction and treatment by air stripping.

Activities this quarter: During the last quarter 1,581,477 gallons of groundwater were extracted and 1.42 pounds of VOCs were removed. There were no NPDES violations.

Projected events for the next two quarters: Routine review of self monitoring reports.

Task E2 - Site Oversight (cont.)

**TELEDYNE SEMICONDUCTOR,
1300 TERRA BELLA AVE.,
SPECTRA-PHYSICS INC.,
1250 WEST MIDDLEFIELD ROAD,
MOUNTAIN VIEW**

Background: The Regional Board adopted final Site Cleanup Requirements for these two adjacent Superfund sites in February of 1991, and EPA issued a Record of Decision. The approved cleanup plan requires SVE at the Spectra-Physics facility and groundwater extraction off-site and at the Teledyne facility. The off-site area includes the North Bayshore area, which contains several additional sources of VOC contamination.

Teledyne sold Teledyne Components (formerly Teledyne Semiconductors) located at 1300 Terra Bella to TELCOM Semiconductors, Inc. in 1993. Teledyne continues to own the property and the building which was previously occupied by Teledyne Components and is now leased to TELCOM.

The Board issued initial Site Cleanup Requirements in January 1993 to the previous owners of the former Montwood site which is in the offsite area. The onsite groundwater remediation system started operation in October of 94. This system is hooked up to the North Bayshore Extraction System, installed and operated by Teledyne/Spectra-Physics.

Last quarter: Teledyne and Spectra-Physics continued implementing the approved cleanup plan, extracting and treating 26.1 million gallons of groundwater and removing 85 pounds of VOCs (on-site and off-site).

On December 14, 1994, the Board adopted a nonbinding allocation of responsibility (NBAR) for Teledyne, Spectra-Physics, Montwood and other PRPs in the North Bayshore area. Teledyne, Spectra-Physics and Montwood are the PRPs with more than 50% of the allocation. They requested arbitration and also asked for a 180 days continuance to allow time for the investigation in the east of Shoreline Blvd. to be completed.

Spectra-Physics submitted the result of the additional soil investigation conducted to identify any vadose zone sources. They did not find any more sources in soil. Spectra-Physics is removing one of their SVE systems (SVE#1). Spectra-Physics also submitted a report evaluating the groundwater extraction system. The result is that the existing groundwater extraction is adequate, and additional extraction wells are not warranted. This task was required in the SCR.

Off-site, Teledyne and Spectra-Physics continued to monitor wells and operate the extraction systems north and south of the Bayshore Freeway.

Additional off-site work includes investigation/remediation activities at Montwood, Santa Clara County Transportation Agency, 1098 Alta Avenue, and Space Park Way site.

On December 14, 1994 the Board adopted an SCR for 1098 Alta. They are in the process of installing an onsite SVE and groundwater extraction and treatment system. The system is scheduled to be up and running by February 21, 1995. They also completed their offsite investigation. They will be installing monitoring wells in the offsite area and will be observing them for 1 year to see if extraction in the offsite area is needed. They were named in the NBAR.

Quarterly ground water monitoring continues at the Santa Clara County Transportation Agency, North Coach Division. They were also named in the NBAR.

In December Montwood finished the additional offsite investigation on the adjacent properties (1667 and 1685 Plymouth Street). There may be a source of VOCs on these parcels.

The preliminary groundwater investigation conducted in the Space Park Way area indicates that there may be a source at or around 1625 N. Shoreline Blvd. The current owner and two of the past operators were named in the NBAR. The owner at 1625 N. Shoreline did a phase I site assessment. We sent a 13267 request to the owner to conduct a phase II investigation. Currently we don't have enough information to issue an SCR or ask the prior tenants to do any work.

Quarterly groundwater monitoring continues at Whisman School District.

Next two quarters: Teledyne and Spectra-Physics will continue to implement the approved cleanup plan, and North Bayshore dischargers will continue investigation and interim remedial actions. Regional Board staff will continue investigating the North Bayshore area to determine the extent of other sites contribution to groundwater contamination in the area, and will work towards bringing these dischargers under a Regional Board order.

In the North Bayshore area, the parcel just south of the landfill known as Farmer's Field area, will be developed in the near future, and the City of Mountain View has requested that Teledyne move some wells. Teledyne has requested that Montwood replace two extraction wells in

Task E2 - Site Oversight (cont.)

this area, and Montwood is in the process of doing so. Redevelopment of this parcel may have other impacts on the North Bayshore dischargers in the future.

VAN WATERS & ROGERS, INC, 2256 JUNCTION AVENUE, SAN JOSE

The final RAP was approved on September 18, 1991 under Site Cleanup Order No. 91-138. The cleanup Plan consists of: soil vapor extraction (SVE) of accessible hot spots, extraction and treatment of groundwater in the A and B aquifers until cleanup standards are met, and long term monitoring.

During the last quarter, VW&R extracted and treated about 2.8 million gallons of groundwater, including an average of 23,000 gallons per day from the A-aquifer and 13,000 gallons per day from the B-aquifer. Chemical concentrations remained similar to the previous quarters.

During the next six months, SVE and ground water extraction will continue. VW&R submitted a soil characterization workplan to investigate the soil underneath their tank farm. VW&R proposes diagonal and lateral drilling methods to investigate beneath the tank farm while the underground storage tanks are still in use. Board staff provided comments on their initial work plan and a revised workplan is due March 1, 1995.

US EPA and CAL/EPA - DTSC LEAD SITES: ***(RWQCB is the support agency)***

JASCO, MOUNTAIN VIEW

EPA issued the ROD in September 1992. The cleanup plan calls for expanded groundwater extraction, treatment prior to POTW discharger, a deed restriction prohibiting wells in shallow groundwater, and ex-situ bioremediation of soils. EPA issued an administrative order for Remedial Design/Remedial Action in December 1992. EPA has approved Jasco's request to pilot-test an alternative approach: air sparging and soil vapor extraction.

During the last quarter, cleanup activities continued at this site, including interim groundwater extraction with POTW discharge.

During the next six months, Jasco will implement pilot testing of air sparging and soil vapor extraction (scheduled for 2/95). EPA staff will continue reviewing Jasco design documents. EPA's response is likely to depend on the results of the pilot testing.

LIQUID GOLD, 580 FWY NEAR HOFFMAN MARSH, RICHMOND, CONTRA COSTA COUNTY

Current Status: In June 93 and June 94, Cal/EPA-DTSC approved the proposed remedial action plan and its associated design. The proposed remedial action consisted of excavated sediment from the drainage channels, placing the excavated sediment on the former activity area of the site, and covering this area with two feet of clean soil.

These field activities including seeding of the site and care of the new vegetation have been completed.

Projected Activities: Over the next six months, the effectiveness of these corrective actions will be evaluated through monitoring activities conducted at the site.

LORENTZ BARREL AND DRUM, SAN JOSE

The Record of Decision (ROD) for the shallow groundwater at the site was signed by the EPA in September 1988.

No actions by the RWQCB this quarter. Minimal activity expected for next several quarters.

MIDDLEFIELD-ELLIS-WHISMAN SITES, MOUNTAIN VIEW

EPA adopted a cleanup plan for the MEW area in June 1989. In mid-1991, EPA and two of the companies - Intel and Raytheon - signed a consent decree covering implementation of final cleanup activities; it received court approval in April 1992. EPA issued a unilateral enforcement order to Fairchild and other MEW dischargers in November 1990.

Various responsible parties at the site are submitting RD/RA reports in response to the unilateral order or the consent decree. The companies have proposed a regional remediation system (south and north of Highway 101); the system north of Highway 101 is closely linked to cleanup activities at Moffett Field Naval Air Station.

During the last quarter, interim remediation continued at several MEW on-site areas. Fairchild, Raytheon, and Intel collectively extracted and treated 17 million gallons

Task E2 - Site Oversight (cont.)

of contaminated groundwater, discharging 16 million gallons to surface waters and reusing the remainder. EPA staff approved more final source control plans during this period.

During the next six months, the companies will continue RD/RA tasks and interim remediation. EPA expects to complete its review of remaining source-control plans by 3/95. EPA will then review the final design for the regional system (both south and north of Highway 101). Design of a reuse project will wait until source-control and regional-system designs are completed; NASA Ames is a big potential user of treated groundwater.

MOFFETT FIELD NAVAL AIR STATION, MOUNTAIN VIEW / SUNNYVALE (DOD FACILITY)

Not part of South Bay MSCA.

UNITED HECKATHORN (AKA: LEVIN METALS), 402 WRIGHT AVENUE, RICHMOND, CONTRA COSTA COUNTY

U.S. EPA is currently seeking a settlement with the responsible parties for the United Heckathorn Site. Settlement negotiations have been ongoing since last quarter and include Federal and State resource trustees, U.S.E.P.A., the responsible parties, and the Office of the State Attorney General.

The remedy for the site specifies dredging of DDT and dieldrin contaminated sediments from the Lauritzen Channel and Parr Canal. July 1, 1995 is scheduled as the commencement date for dredging operations.

WESTINGHOUSE, SUNNYVALE

The Record of Decision for this EPA lead site was signed on October 16, 1991. EPA reached agreement with Westinghouse to start remedial design in February 1992.

EPA and Westinghouse have failed to reach agreement for a Consent Decree for final remedial action. Instead, EPA issued an administrative order in September 1993 that compels Westinghouse to perform the full-scale cleanup plan as designed. The remedial design package was finalized and submitted to EPA during March 1994.

Activities this quarter: Shakedown of the pilot groundwater treatment and extraction system started December 30, 1992, and the system has been operating since then. During the third quarter 1994 approximately, 365,495 gallons of groundwater was extracted. Approximately 1.01 pounds of PCBs were removed during the third quarter, bringing the total removed since startup to approximately 17.32 pounds. Initial system discharge is to the City of Sunnyvale's sanitary sewer. Full scale groundwater extraction and treatment is scheduled for early 1995.

Projected events for the next two quarters: The discharger plans to complete UST tank removal and PCB area soil excavation activities, and complete installation of extraction wells. Westinghouse has submitted the final remedial action work plan. RWQCB staff will review need for ground water extraction and PCB discharges.

STATUS OF REGIONAL BOARD MSCA SUPPORT CONTRACTS

DATA VALIDATION (INTERAGENCY AGREEMENT W/CSDHS)

The data validation agreement called for the California Department of Health Services (DHS) to conduct data validation on analytical data from selected groundwater samples for eighteen Superfund sites. To date, DHS has reviewed 36 data validation packages from MSCA sites. Most sites have undergone at least two rounds of data validation.

The data validation agreement expired in 1992. A new agreement will be negotiated if further data validation is needed.

TECHNICAL ASSISTANCE CONTRACT

The contract is expired but may be re-advertised depending upon needs to be determined at a later date.

BASELINE PUBLIC HEALTH EVALUATION CONTRACT (W/ICF CLEMENT)

The contract is expired and is not expected to be renewed. RWQCB will use in-house (RWQCB or US EPA) toxicologist if necessary during the next year.

SUPERFUND LABORATORY CONTRACT

The Superfund lab contract expired June 30, 1993, and is not expected to be renewed. Minimal activity is expected in this area compared to past activities. Where sampling and analyses is required at MSCA site, RWQCB staff will utilize existing RWQCB contracts and bill MSCA accordingly.